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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SCULLY SCOTT MURPHY & PRESSER, PC
400 GARDEN CITY PLAZA
SUITE 300
GARDEN CITY, NY 11530

EXAMINER
DAO, THUY CHAN

ART UNIT	PAPER NUMBER
2192	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/671,012	SRINIVAS ET AL.
	Examiner	Art Unit
	Thuy Dao	2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE __03__ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>01 February 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☐ Claim(s) _____ is/are pending in the application.

   4a) Of the above claim(s) <u>9,13 and 14</u> is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-8,10-12 and 15-22</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>25 September 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the amendment filed on February 1, 2007.

2. Claims 1-8, 10-12, and 15-22 have been examined.

Response to Amendments

3. Per Applicants' request, claims 1, 10-12, and 15-16 have been amended, claims 9 and 13-14 have been canceled, and claims 21-22 have been added.

4. The objection to the specification is withdrawn in view of Applicants' amendments.

5. The 35 USC §101 rejection over claims 1-8 is withdrawn in view of Applicants' amendments.

6. The Applicants added new claims 21-22 containing new limitations without pointing out figure/text support from the specification. For a proper prosecution record, the examiner respectfully requests the Applicants point out the figure/text support for these newly added claims 21-22 in the next communication with the Office.

Specification

7. Applicant is reminded of the proper language and format for an abstract of the disclosure. The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. (i.e., *"Disclosed are a tool and method ..."*, line 1).

　　　Correction is required. See MPEP § 608.01(b).

Response to Arguments

8. The Applicants are thanked for a thorough reply. Applicants' arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Objection

9. Amended claims 10-12, now depending on claim 21, are objected to under 37 CFR 1.75(c), as being of improper dependent form for not referring to a preceding

claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections – 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-8, 10-12, and 15-22 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,721,941 to Morshed et al. (art made of record, hereinafter "Morshed").

Claim 1:

Morshed discloses a program storage device and *a software tool containing machine readable instructions stored on a physical medium for monitoring the behavior of a running computer program for code patterns that violate a given set of coding rules* (e.g., FIG. 2-4 and related text), *the software tool comprising:*

a pattern detector manager including machine readable instructions for inserting into a running computer program a plurality of entry breakpoints (e.g., FIG. 14, blocks 442, 448, 452, 456, 460, 464, col.23: 1 – col.24: 11),

each of said entry breakpoints being associated with one of a plurality of defined coding patterns (e.g., FIG. 14, blocks 446, 450, 454, 458, 462, coding patterns as End of Method?, New LNo?, Throw?, Exit?, Method Call?); *and*

a plurality of pattern detectors, each of the pattern detectors being associated with one of said defined coding patterns, including machine readable

instructions, and being invoked by the pattern detector manager, after one of the entry breakpoints associated with the coding pattern associated with said each of the pattern detectors, is reached in the computer program (e.g., FIG. 15, col.24: 11-62, instrumentation for a method entry; FIG. 16, col.25: 1-37, instrumentation for an abort; FIG. 17, col.25: 38-67, instrumentation for a method exit),

for determining whether the computer program violates the coding pattern associated with said each of the pattern detectors (e.g., FIG. 12, col.21: 6-67; col.23: 36 – col.24: 11).

Claim 2:

The rejection of claim 1 is incorporated. Morshed also discloses *the pattern detector manager automatically inserts a plurality of breakpoints for pattern detection, with little or no intervention from the user* (e.g., col.20: 40-49; col.20: 63 – col.21: 5).

Claim 3:

The rejection of claim 1 is incorporated. Morshed also discloses *when one of the entry breakpoints is reached in the computer program, the pattern detector manager inserts into the program at least one further breakpoint, each further breakpoint identifying a respective step in the program that is part of the coding pattern associated with said one of the entry breakpoints* (e.g., FIG. 15-17, col.24: 11 – col.25: 67).

Claim 4:

The rejection of claim 1 is incorporated. Morshed also discloses *a debugger for debugging the computer program, and further including a launcher to invoke the pattern detector manager when the debugger is used to debug the program* (e.g., FIG. 12, col.21: 6-67).

Claim 5:

The rejection of claim 1 is incorporated. Morshed also discloses *the pattern detector manager removes the entry breakpoints at specified times* (e.g., col.20: 6-39).

Claim 6:

The rejection of claim 3 is incorporated. Morshed also discloses *the pattern detector manager removes the entry breakpoints and the further breakpoints at specified times* (e.g., col.20: 14-62).

Claim 7:

The rejection of claim 3 is incorporated. Morshed also discloses *the pattern detector manager includes means for monitoring for the occurrences of the entry breakpoints; and the pattern detector manager inserts said at least one further breakpoint into the computer program in response to the monitoring means detecting the occurrence of said one of the entry breakpoints* (e.g., FIG. 15-17, col.24: 11 – col.25: 67).

Claim 8:

The rejection of claim 1 is incorporated. Morshed also discloses *the plurality of defined coding patterns are selected from the group comprising best practice patterns and problematic coding patterns* (e.g., FIG. 14, col.23: 1 – col.24: 11).

Claim 15-20:

Claims 15-20 recite the same limitations as those of claims 1-8, wherein all claimed limitations have been addressed and/or set forth above. Therefore, as the reference teaches all of the limitations of the above claims, it also teaches all of the limitations of claims 15-20.

Claim 21 (new):

Morshed discloses *a method of detecting code patterns in a computer program that violates a given set of coding rules, the method comprising the steps of:*

defining a set of coding rules, each of the coding rules being associated with a respective one pattern detector (e.g., FIG. 14, blocks 446, 450, 454, 458, 462);

providing a pattern detector manager for managing said pattern detectors (e.g., FIG. 14, blocks 442, 448, 452, 456, 460, 464, col.23: 1 – col.24: 11);

providing a computer program, and running the computer program as a debug mode (e.g., FIG. 12,col.21: 6-67; col.23: 36 – col.24: 11);

the pattern detector manager identifying, during the running of the computer program in the debug mode, points in the computer program that relate to said coding rules (e.g., FIG. 15-17, col.24: 11 – col. 25: 67), *and*

said pattern detector manager inserting into the computer program an entry breakpoint at each of said identified points (e.g., col.20: 40-49; col.20: 63 – col.21: 5);

said pattern detector manager invoking each of the pattern detectors to monitor the computer program for a violation of the coding rule associated with said each of the pattern detector (e.g., col.21: 6-67), *including the step of:*

each of the pattern detectors inserting one or more further breakpoints into the computer program to identify further points in the computer program that relate to the coding rule associated with said each of the pattern detector (e.g., col.24: 11 – col.25: 67), *and*

tracking said additional breakpoints to determine whether the computer program violates the coding rule associated with said each of the pattern detectors (e.g., FIG. 14, col.23: 1 – col.24: 11; col.20: 6-62).

Claim 22 (new):

The rejection of claim 21 is incorporated. Morshed also discloses *the tracking step includes the steps of, said each of the pattern detectors*

monitoring the running computer program for the occurrence of any one of the first set of defined conditions, the occurrence of which violates the coding rule associated with said each of the pattern detectors (e.g., col.21: 6-67); *and*

monitoring the running computer program for the non-occurrence of any one of a second set of defined conditions, the non-occurrence of which violates the

coding rule associated with said each of the pattern detectors (e.g., col.24: 11 – col.25: 67).

Claim 10:

The rejection of claim 21 is incorporated. Morshed also discloses *the inserting step includes the step of, when one of the entry breakpoints is reached in the computer program, inserting into the program at least one further breakpoint, each further breakpoint identifying a respective step in the program that is part of the coding pattern associated with said one of the entry breakpoints* (e.g., col.23: 36 – col.24: 11; col.24: 16 – col.25: 67).

Claim 11:

The rejection of claim 21 is incorporated. Morshed also discloses *a debugger for debugging the computer program, and further including the step of invoking the pattern detector manager when the debugger is used to debug the program* (e.g., FIG. 12, col.21: 6-67).

Claim 12:

The rejection of claim 21 is incorporated. Morshed also discloses *the step of removing the entry breakpoints at specified times* (e.g., col.20: 6-39).

Conclusion

12. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication should be directed to examiner Thuy Dao (Twee), whose telephone is (571) 272 8570. The examiner can normally be reached on Monday, Tuesday, Thursday, and Friday from 6:00AM to 4:30PM.
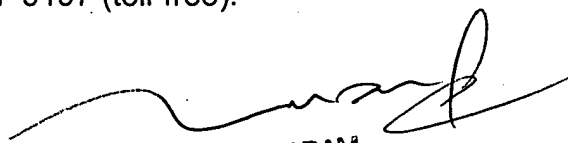
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam, can be reached at (571) 272 3695.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273 8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is (571) 272 2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

T. Dao

TUAN DAM
SUPERVISORY PATENT EXAMINER